

GEORGE W. YORK, Editor.

AMERICAN BEE JOURNAL.

ESTABLISHED IN 1861 OLDEST BEE PAPER IN AMERICA

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS.

40th YEAR.

CHICAGO, ILL., APRIL 5, 1900.

No. 14.

CONTRIBUTED ARTICLES

New York Bee-Disease or Black Brood.

A NOTABLE contribution to the literature of bee-culture on its pathological side is to be found in Gleanings in Bee-Culture for Feb. 15, written by Wm. R.

Howard, A.B., M.D., the man to whom we were already indebted for his valuable work upon foul brood and his investigations on pickled brood.

The new disease, which for want of a name was at first called the New York bee-disease, because it made such ravages in that State, is now called black brood, the appropriateness of the name coming from the fact that the disease begins with a dark spot on the larva, which increases in size, becomes darker, and finally black.

In his introduction, Dr. Howard says: "I have received specimens from Messrs. George W. York, of Illinois; E. R. Root, of Ohio; N. D. West, a New York State bee-inspector, and P. H. Elwood, of New York. All of these men have furnished not only material, but have been active in getting data for the investigation."

Besides the specimens thus obtained, Dr. Howard obtained some bees and started the disease on his own account. In all he made more than a thousand microscopical examinations.

Dr. Howard gives a detailed account of his laboratory investigations, and also of his experimental investigations

made with two nuclei into which he introduced *Bacillus milii*, and then proceeds as follows:

Here conclude my investigations, which have been carefully conducted; altho under disadvantages as to season, etc., they have in a great measure been satisfactory. Many points of vital interest have been made clear, while others of equal importance are necessarily obscure. It is clearly not foul brood. It is clearly not pickled brood. It is clearly something new. It is apparently a disease of the pupa stage. The infection is clearly not in the pollen—not due to a fungus but due to bacteria.

All diseases, in animal and vegetal life, are due to the results of parasitic invasion—some by their mechanical presence, some by the ferments produced in the body, and in plants by changes in or taking from them their life juices, causing starvation and immature growth.

In any given case of rotten wood, dead from freezing, starvation, or other causes, being allowed to remain in the cells, much of the poison generated, as well as the germs themselves, or their spores, remain adherent to the sides of the cell. These are like the seeds which "fell on stony ground," and will not grow until the proper soil, such as is furnished by the rich nitrogenous substances supplied to the brood by the nurse-bees is brought in contact with them, when a luxuriant growth obtains. This produces a fermenting, decomposing food unfit for the brood, and sets up a ferment, a decomposition within the bodies of the bees, thus destroying their lives. This might happen to the host with any form of parasitic life, either animal or vegetal.

It might be said, speculatively, that the disease had its origin in starvation, and that in some cases several putrefactive bacteria of similar biological character were responsible for this malady, which, when once started and undisturbed, becomes as destructive as the old-fashioned foul brood. The two germs isolated having similar, or the same, biological characteristics, especially an

alkaline medium in common, are both in a measure responsible for this disease, and perhaps the variations, the malignancy, etc., are due to modifications by their combined



Dr. Wm. R. Howard, Bacteriologist.

**Explanation of Plate; Mag-
nified 600 Diameters—
Reduced.**

Fig. 1.—*Bacillus milii*. *a*, spore formation, showing morphological changes, in agar-agar plate culture; *b*, peculiar arrangement often noticed in cultures; *c*, isolated bacilli, floating in the liquids of the bee or in cultures; *d*, Zo-Oglea, showing the most common arrangement of the spores at the center, and the separation of the bacilli from the mass.

Fig. 2.—*Bacillus thoracis*, *a* showing rods arranged end to end as occurs in cultures; *b*, peculiar arrangement seen in agar-agar drop cultures, showing spores by fission; *c*, Zo-Oglea, showing common arrangement of the mass.

Fig. 3.—*Mucor*, *a* showing the spore-bearing heads; *b*, showing these heads discharging the spores. Common on decaying matter.

Fig. 4.—*Aspergillus pollinis*, the fungus causing "Pickled Brood."

Fig. 5, *Fungi*.—*a*, *Hendersonia polycystis*. Fungus found on dead twigs, grasses, etc.; very common; *b*, *Dactylium rosaceum*, appears as pinkish roseate spots on decaying vegetation; very common; *c*, *Massaria*, var.; *d* and *e*, fungi not common—not placed; unimportant.

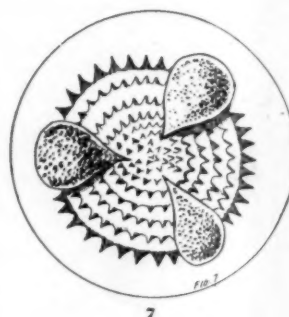
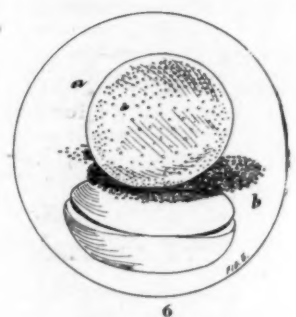
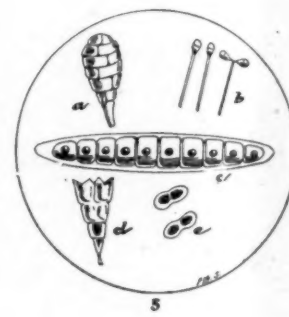
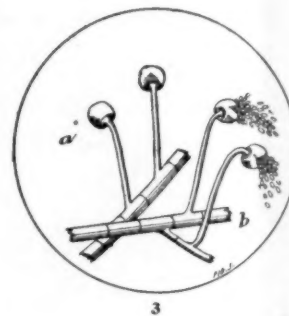
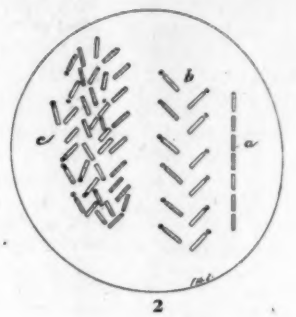
Figs. 6 and 7, spore-bearing organs of fungi.

Fig. 6, *a*, transparent spore-receptacle intact; *b*, same, showing membrane ruptured and spores escaping.

Fig. 7.—Contains similar spores in size and shape, which escape thru the membranous pouches triangularly arranged at the dentate periphery. Found in pollen. No culture made.

Fig. 8.—*Penicillium glaucum*, common fungus, found on moldy bread and elsewhere; very common.

Illustrations in this article are from *Gleanings in Bee-Culture*.



action. It is, evidently, now due to a specific germ, *Bacillus milii*: the other, perhaps purely accidental at first, on account of its requiring more oxygen, is now found in the thorax among the respiratory organs.

While it has not been clearly demonstrated by facts, practically, it appears to be true that perfect bees, especially nurse-bees, are injured by the infection.

DIFFERENTIAL DIAGNOSIS.

Foul brood, pickled brood, and black brood. Foul brood, due to *Bacillus alvei*—a specific bacterium.

Pickled brood, due to *Aspergillus pollinis*—a specific fungus.

Black brood, due to *Bacillus milii*, modified, perhaps, by *Bacillus thoracis*, specific bacteria.

Black brood may be introduced into a healthy colony thru infected food or infected combs—combs from which the diseased brood has been removed, or in which particles remain. The food for the young larvæ, either from its chemical reaction or from its lack of nitrogenous substances, is not a suitable medium for immediate growth of the germs; but when the chyle-like food is furnished the older larvæ, a chemical change in the food produces a change in the liquids of the bee, which become a suitable nutrient medium for their rapid development and dissemination. It would appear that, in some cases, *Bacillus thoracis* was the cause of death, as the spiracles, or openings admitting air to the respiratory apparatus, were closed by the products of decomposition or the result of it. In such cases it is usually

nearly matured bees that are choked for want of air. These did not show the discoloration or shapeless mass which always obtains when *Bacillus milii* is found in the abdomen. This latter germ, multiplying rapidly in the rich nutrient medium of the alimentary tract, may destroy younger blood than the former. It is often found in other parts, and is certainly the cause of the dark masses of rotten brood. Both germs are found in the same comb, and often in the same bee, thus insuring a mixt infection.

REMEDIES.

The best time to effect a cure is during a honey-flow.

Adopting a modified McEvoy plan:

Make your colonies strong by uniting; place them upon comb foundation starters, and cage the queen. After five days remove the starters and make them into wax, and give full sheets of foundation—keeping the queen caged five days longer. This will give time for all infected mature bees to have disappeared before any brood is reared.

Don't try to save infected mature bees by drugs. They are not worth the trouble; yet salicylated syrups, [Sodium salicylate one ounce, water 5 gallons, white sugar 40 pounds. Make syrup without heat.] during a dearth of honey in the field, would in a measure prevent a recurrence, but would not cure the disease. It would not destroy the germs, but prevent their growth, by placing them in an antiseptic [Antiseptics prevent germ growth. Disinfectants destroy the life of germs, by actual contact only.] medium.

If a cure is contemplated when little honey is coming in, the above modified McEvoy plan should be observed in every detail, and the bees fed with salicylated syrups until the combs are well filled, so that all food may be rendered antiseptic by the time brood-rearing begins.

Great care should be taken to melt all old combs and removed starters into wax at once. Do not use a solar extractor, but remove the material at once to hot water or a steam extractor. Until further investigations shall reveal the longevity of these germs in open air, I shall recommend a thoro disinfection of the hives, frames, etc., by boiling in linseed oil for half an hour. This would not injure hives or fixtures; besides, the high temperature reached would insure thoro disinfection. Careful, practical, and experimental work, coupled with microscopical investigations in the presence of this disease when at its worst, will, I feel confident, discover some practical plan for its successful eradication.—Gleanings in Bee-Culture.



Painting Apiarian Tools, Etc., Red.

BY GEO. G. SCOTT.

TO "paint the town red" is of too frequent occurrence, tho of doubtful utility. In my practice, however, I find that to paint with red the small implements of the apiary in use out-doors during the summer months, is a remarkable saver of both time and temper. This simple idea, not even worthy of the name "device," will save the bee-keeper who adopts it much fret, as it is a successful remedy against ineffectual search. You bee-keeper, how often after prying open a hive-cover, and in the great interest concentrated for the moment on the contents of the open hive, have you hurriedly and without thought dropt anywhere your chisel in the grass and weeds.

On closing this hive you repair to another to repeat the operation of opening, when you find you have forgotten to bring with you the truant tool. A search is made, and not infrequently you fail to find it at once. In the interval time is pressing, and you rub your scalp with your fingertips, or with nervous, unemployed energy stroke your whiskers, wondering with bulging eyes where that "plague-oned" thing can be. The writer many a time has had such a trial, and as human nature is constituted very much alike along some lines, he has a sneaking thought that this experience has been yours also.

I have lost tools that were not found the same season, and when discovered during the following spring, rust and rot had done their deteriorating work. But and if that implement had been painted red, an ordinary discernment would have quickly found it. Red being in brilliant contrast to the verdant surroundings of the bee-keeper (no insinuation meant), it stands to reason that anything thus daubed will be plainly recognized, not forgetting the rouged cheek, or the nose it has cost so much to permanently stain!

To paint red the screw-driver, grass-hook, grass-shears, scraper, hammer, small blocks, the outside edges of bee-escape boards, the woodwork of the smoker, or whatever

other traps about the bee-yard that may not ordinarily be easily recognized, will aid in a successful hunt, if lost. Any implement painted with crimson and placed on top of a hive will shine like a beacon light to the mariner; or smeared with scarlet and thrown in the grass will glow like a lighting-bug in the dark of the moon. Try it.

Fayette Co., Iowa.



Thirty Years' Experience in Marketing Honey.

BY C. P. DADANT.

IN reply to the following enquiry, I think the best I can do is to give our experience during a period of over 30 years in the matter of marketing honey:

MR. C. P. DADANT:—I am intending to run my apiary for extracted honey, and try to work up a local trade for it, something after the lines laid down in your book; that is, get the grocers to handle it. Now, if you do not think me too impertinent, I would like you to give an article in the American Bee Journal on marketing extracted honey; or, in other words, tell how you go to work in a new field, where people are not used to it, to work up a trade with the dealers; what size or sizes of package, what price you would allow dealers to sell for compared with the price of granulated sugars and other sweets; what percentage would be fair to allow the dealer; and whether you would put it in stores to be sold on commission, or insist on selling to dealers for cash.

I am fully aware that these questions are quite fully answered in Langstroth Revised, but that has been written some time, and you have no doubt had lots of experience along these lines since the book was written. It is very probable that you can give a beginner advice which it would take him years to dig out alone.—PENNSYLVANIA.

It must be remembered that we began the production and sale of extracted honey very shortly after the invention of the honey-extractor. This invention is due, as is well known, to De Hruschka, an Austrian, and dates back to 1865. Very shortly after, Samuel Wagner gave a description of the invention in the American Bee Journal, which he then published in Washington, and in 1867 we were working an extractor made at home, a very bulky and unhandy machine. We began the production on a comparatively large scale in 1868, and I well remember my first attempt at selling extracted clover honey. The druggist to whom I brought my sample flatly refused to touch it, because it was too nice. Druggists alone at that time handled honey, and outside of a few "caps," or a few broken combs of honey, there was nothing to be found but a thick, opaque, and brownish-looking liquid—strained honey—obtained by crushing the combs and pressing them to squeeze the honey out, or, worse yet, by melting comb and all in a pan in the oven. The honey that was obtained was very little better than molasses.

For the first two or three years we had a great deal of trouble in getting rid of our crop of extracted honey, even tho we had comparatively little of it to sell, as we then produced more comb honey. But the price was high. I remember that in 1871, the year of the Chicago fire, we sold extracted honey to a Chicago firm at 18 cents per pound, in barrels. On the second day of the fire we were about to make another shipment, when we were informed that the city was in flames, and that it was quite likely that our man was burnt out. So we withheld the goods, and lucky that we did so, for the man was "broke," and could not pay for what he had bought.

Within a very short time the markets became glutted with extracted honey, because not only were people unacquainted with it, but many dealers put a spurious article on the market which did great damage to the true honey. In addition to this the honey granulated, and most consumers thought that it was only sugar, and would not buy it when in that condition. We still find an occasional person who does not know that granulated honey is good, but they are quite scarce.

Our first attempt at retailing honey was in glass jars, but the great cost of the jars at that time, and the fact that the granulated honey did not appear at its best in them led us to try tin packages. So we had a lot of cans made holding 10 pounds each, and the first season we put up honey in this shape we succeeded, by much drumming, in selling some six or eight thousand pounds in that one size of package, which we sold at wholesale at 12½ cents per pound. We found our first ready sales thru a Mississippi steamboat agent, who managed to place for us over a hundred 10-pound cans during the course of a few weeks, in the river traffic.

We then began a systematic drumming of our honey put up in this shape, among all the grocers of our neighboring towns, and very soon found that we could not command a retail business unless we put up the goods in smaller packages. Thus we got to selling 5-pound cans, then 2½, then 1½.

Our manner of proceeding was to go to the grocer, make ourselves acquainted with him, then offer him our honey, guaranteeing its purity, and offering to take back any lot that would not be entirely satisfactory. We askt him to give the same guarantee to his patrons. We never sold on commission. The few times that we tried it we had cause to be sorry for it, either because the goods would remain on the shelves without attention, or because we did not get returns for all we delivered under some excuse or other.

We slowly built up a very good trade, for we always got rid, very readily, of exceedingly large crops, harvesting as much as 45,000 pounds during several single seasons, tho we must say that we never but once got two large crops in succession—in 1883 and 1884.

For 25 years we have sold very little comb honey, and the bulk of our crops has been extracted. For 12 or 15 years past the condition of the market, as far as we are concerned, has totally changed, for the home competition of honey-producers has well nigh driven us out of the home market. It appears that the producers in our neighborhood have thought it impossible for them to sell at our prices. So they have, some of them, ascertained our rates, and have invariably undersold us to get the home trade away from us.

As there are a number of bee-keepers who follow our methods in this vicinity, they have produced enough to crowd us almost out. But, of late years, there has been no trouble in getting rid of the crops anywhere, and we have oftener than otherwise sold our honey at very remunerative prices in large lots. The past season, while one of our home bee-keepers insisted on retailing his honey at 7 cents per pound in small packages to beat us out of the home trade, we have not sold a single pound at less than 7 cents wholesale, and have sold some as high as 9 cents. We have bought all the honey we could hear of among our friends, and it is all gone, and more is wanted.

Our advice to beginners is to seek home sales. Sell to your grocers for cash or for trade, as conditions may require. Do not sell on commission, but have it clearly understood that your goods are just what you represent them to be, and that you stand behind them with your guarantee.

Occasionally you will find a man who will be displeased because he got clover honey when he wanted basswood, or basswood when he expected fall honey. Again, some time or other a little of your honey will prove too watery to keep; this happens in wet seasons with the very best of care, and it will ferment and have a sharp taste. Do not hesitate to make this good, if the honey has been sold before you knew it. Fermented honey, unless it is actually soured, can usually be returned to a very good quality by simply heating it to evaporate the gases that have formed in it. We have often done this, and used the honey afterwards.

Does it pay to produce extracted honey? That question has been askt us many a time. It was put to us by our foreman one day, after some four or five bad seasons in succession. He had seen how great were our expenses when the bees had to be fed, and wondered whether there was anything in it. We turned to our books and found that in the eleven years that had just elapst we had sold some \$16,000 worth of honey of our own crop. An average of \$400 to \$500 per year would have covered the cost of management and labor. So you can see there is something in it. The cost of extracting is very nearly, if not quite, covered by the beeswax in the cappings. During our best season we made some 600 pounds of first-class beeswax from the cappings. At present prices this would make over \$150. Wax from cappings is the very best that can be had.

It is impossible to set a price on honey for any one to use as guide. Prices depend on supply, on demand, on quality, etc., and we can only advise bee-keepers to be ruled by their own judgment. If it is thought best to sell honey on commission, offer 10 percent to the retailer. A wholesale dealer ought to be satisfied with half as much. You can always sell honey in trade to the grocer of whom you buy your supplies, and to many of your townsmen with whom you have any business dealings. But the key of success in selling is in *your guarantee of the quality of your goods.*

Hancock Co., Ill.

"Painted or Unpainted Hives—Which?"

BY H. M. JAMESON.

THE above appeared in the American Bee Journal last December, as a text from which C. Davenport preaches us bee-keepers a truly valuable sermon. There exists, as he says, a diversity of opinions in the matter of painting

bee-hives. I fully agree with him as to the advisability of painting hives, even as fully as to the painting of houses. While some of the greatest bee-masters in our country advocate unpainted hives, on certain grounds which I will not attempt to dispute, no man can successfully hold forth the doctrine that lumber exposed to the weather peculiar to any State of the Union, will endure a longer time unpainted than will such lumber well painted.

Mr. Davenport kindly tells us how to obtain a good base as a perservative, as well as one that is cheap. There is probably none better. However, there are some beginners who will be putting up some new hives; they will have but little or no cash to pay for even the cheapest paints. I will say to these, that I paint all my hives with crude oil, just as it is pumped from the wells in Los Angeles (costs here \$1.50 per barrel). Mix with this enough red ochre to give a good coat, and to each gallon add one pint of coal-oil (or more if it is too long drying); and by giving two coats your hives will stand any kind of weather, and will be in good condition at the end of one or two years to take a coat of white paint.

The bees take kindly to this black crude oil. I have even boiled the lumber of dovetailed hives in this stuff before being put up, and yet the bees like it. More than this, I believe it likes the bees. All will understand that some shade will be needed in summer with these dark red hives.

We have the magnificent redwood here for hives, which, in my estimation, cannot be excelled, and only equalled by Oregon and Washington cedar. One of our trees makes a few hives, too. I have helpt cut a giant that would make more hives than the A. I. Root Co. ever sent out in one season; and there would not be a knot or shake in one of them. Covers and bottom-boards could be one piece, and 25 feet square if saws were big enough to cut them.

Riverside Co., Calif.

Is it "Long Idea" or "Long Ideal" Hive?

BY WM. MUTH-RASMUSSEN.

THE Boiler is wrong in his nomenclature, on page 40, and is evidently not conversant with the earlier volumes of the American Bee Journal. There is no "Long Ideal Hive." In the April number for 1873, the "New Idea Hive" was first advertised for sale, and the first mention of it is in an article from the inventor, D. L. Adair, Vol. VII (1872), page 253. Previous to this it was known as "Adair's Section Bee-Hive," but the sectional feature (by cross partitions) was eliminated, and the name changed to "New Idea," not "New Ideal."

On page 250 of Vol. VIII (1873), in an article from R. M. Argo, is a complete description of this hive. Subsequently some one in a joking manner called it the "Long Idea Hive" on account of its shape, and this nickname has clung to it since then. I think that I have recently seen several allusions to the "Long Ideal," and have wondered that the editor or some one of the veterans did not correct the misnomer.

Inyo Co., Calif.

[Upon receipt of the foregoing, and remembering an interview we had with Mr. O. O. Poppleton on this subject, we forwarded to him Mr. Muth-Rasmussen's criticism, and have received the following in reply:—EDITOR.]

EDITOR YORK:—The history Mr. Muth-Rasmussen gives of the "New Idea Hive," and how its name became corrupted into "Long Idea Hive," is, so far as my recollection goes, correct, and agrees with what I have already written in two or three communications. Gen. Adair's hive differed in an essential particular from the long, single-story hives now in use, the outside or shell of the hive only being alike. If the name, "Long Idea Hive," was given to the one described by Gen. Adair, then it doesn't belong to the one now in use, and there is no ready way of distinguishing between the two, unless another name is used for the later form. As a matter of fact, however, the name has been used for both styles of hives, and is an ample reason for making the slight change of name for one of them.

The name "Long Idea" has always seemed to me to be a misnomer when applied to anything. What is its meaning, anyhow? What definition would a dictionary give to a "Long Idea?" I have long thought that this name, which was first given to the hive in derision, was an offense to good taste in nomenclature, and should be changed if an appropriate name could be found, not too dissimilar from the one hitherto in use, and not too long. The proper name would be "Long Single Story Hive;" but that

is too long for common use, and so the old offensive name has been allowed to stick until now.

Last summer, while looking over some copies of an Australian bee-paper, I noticed the name it used was "Long Ideal Hive," and I recognized at once that this was the solution of the name question. This name is so similar to the old one as to create no confusion whatever in making the change, is short, and, above all other considerations, violates no rules of good taste. The name is in common use in Australia, and, if I have any influence with the editors of our American bee-periodicals, it will be the common name here in America.

While in Philadelphia last fall, I requested Editors York and Root to use the word "Ideal" instead of "Idea" when naming the hive, and as the most extensive user of these hives in this country (which, according to Mr. Muth-Rasmussen's statement, are not the same hives to which the old name was first applied), I think my judgment as to which is the best name for the hive should have some weight.

O. O. POPPLETON, Dade Co., Fla.



A Three Years' Experience with Bees.

BY S. B. SMITH.

IN the spring of 1897 I moved from Stevens County to this (Millelacs), and I brought with me six colonies of bees. They did not swarm the year before, but the surplus honey they stored brought \$60. I will now give my experience with my bees for the three years I have been here.

My bees arrived June 10; moving them so late in the season delayed swarming. July 12, 13 and 15 I had a prime swarm issue on each day. I did not wish to have any after-swarms, so I put supers on the old colonies at once. In a very few days all the supers were full of bees, and they were filling the sections with honey. I watched them closely for 15 days, with no signs of second-swarms, and according to bee-laws I supposed they would not swarm again, but in 21 days each of the old colonies cast a second swarm, and in the meantime they had filled all the sections (84 in all).

Notwithstanding the second-swarms and lateness of the season, it being now Aug. 5, they filled nearly all of the second lot of sections I gave them, and capt them in good shape. One of the second swarms filled the brood-frames and 28 pounds of section honey. The other three old colonies swarmed later, and all did well. One swarm absconded, and I had 17 to put into winter quarters. I kept no account of what my bees made that year; all I can say is, it was a profitable year with me.

I put the bees into winter quarters Dec. 5, and put them out March 28, 1898, apparently in good condition, but later I lost two by being robbed. My first swarm issued May 28, and the second prime swarm June 2, both absconding.

The season of 1898 was a poor one for honey, yet the bees in this section had a great swarming fever. My 15 colonies, spring count, stored only 400 pounds of honey, and increased to 24 colonies.

In the spring of 1898 I bought a colony of Italian bees, receiving them about May 15. June 12 they cast a swarm, and at the same time one of my hybrids cast a swarm, both clustering together. I hived them, but as they did not go into the hive readily, I lookt in front of the old hive and found the queen and put her into the hive, and soon the bees all went in. The colony I bought swarmed three times, and stored 12 pounds of section honey. All the young swarms gathered more honey than they used in wintering. That year I put my bees into the bee-cellar Nov. 26—19 colonies.

The next spring (1899), on April 3, I put them on the summer stands, all apparently in good condition, but after a few weeks some colonies showed signs of weakness, and before I was aware of danger eight colonies died from spring dwindling, leaving a large amount of honey in each hive. None of the Italians died. I think some, and perhaps all, that died were queenless. Our great bee-men will say that my bees did not have proper care after I put them out, to which charge I plead guilty.

My first swarm issued June 3, and they continued swarming until I had 27 colonies, from which I obtained 900 pounds of section honey. I had more bees than I wanted, so I disposed of 11 colonies.

December 8 my bees had a good flight, and Dec. 14 I put them into the bee-cellar—16 colonies, all but one in good condition for winter. I have a bee-cellar dug in the side of a sand-hill, 10x12x7 feet inside, and I think it is the best place to keep bees there is in this county.

I now have 10 pure Italian colonies from the one I bought, and my hybrids are becoming strongly Italian. My Italians are very good-natured, easy to handle, and good honey-gatherers; all the fault I find is, they are too much inclined to swarm. My first Italian swarm issued June 12, and in a few days I put on a super which they soon filled—both hive and sections—and I supposed they were filling the sections with honey, but to my great surprise, on July 24, they cast a swarm, and Aug. 2 cast a second, and Aug. 6 a third swarm. This weakened them so they did not store any honey in sections, and but little in brood-frames, so I drove them out in the fall and took what little honey they had. The old colony I bought swarmed three times, and stored 24 pounds of section honey.

My experience as given in this article differs in some respects from the opinions of apiarists as given in the American Bee Journal, nevertheless I have stated facts just as they occurred. I refer to second-swarms 21 days after prime swarms, and many of these after-swarms have proved to be the best, altho coming out late in the season, while with most bee-men the opposite seems to be true.

I have taken the American Bee Journal for many years, and am largely indebted to it and the opinions of its correspondents for the little knowledge I have of the laws governing the honey-bee; and yet, my experience the past three years has convinced me that those laws and opinions are not infallible.

Millelacs Co., Minn.

CONVENTION PROCEEDINGS

Report of the California State Convention.

BY J. H. MARTIN.

The California State Bee-Keepers' Association met in Los Angeles at 1:30 p.m., Feb. 21, 1900. About 50 bee-keepers were present. Pres. Robert Wilkin, in his annual address, related interesting reminiscences in his experience as a bee-keeper. He caught the bee-fever while attending a fair near his home in Pennsylvania, and there saw a man making a public exhibition of bees. He afterward helped Mr. Harbison prepare 140 colonies for shipment to California, and soon after that, and after losing some 300 colonies during a severe winter, he also came to California, and has been, and is now, one of the foremost bee-keepers here.

In this State bees were first kept in the Sacramento Valley. The first shipments were not very successful, and the bees that did survive the journey were valued at \$100 per colony, and the first honey was sold for \$1.00 per pound.

After the bees had increased to large numbers, many of them were taken to Southern California, and that portion of the State became stocked. In the early days the bee-keeper was not so favored with bee-literature as at present. The American Bee Journal was mentioned as the very first of the bee-papers, and it has been of great benefit to the fraternity.

Mr. Wilkin stated that he had experienced the usual ups and downs common to all bee-men, that the present dry seasons were in line with his former experiences, and that the patient bee-keeper who held to the business would be the one who would reap success in the end. He many times marketed his own honey, and had made many shipments to various parts of the world, his heaviest shipment being 70 tons to London, England.

A great trade could be worked up in California honey, but from the fact that a good season would likely be followed by a bad one, or a total failure, the uncertainty of the supply had a disastrous effect upon the market.

A paper was read from Mr. Thos. Wm. Cowan on foul brood. The subject is so vital to bee-keepers that it was discussed at length, and as the law of this State is defective in many points, a committee of five was appointed to take steps to draw up a new law and get it before the legislature.

The comb-honey subject was treated at length by Mr. Stubblefield. He asked the question, "What is the matter with the comb honey market in Los Angeles?" His idea of the matter was that a fancy grade of comb honey can not be sold here at a satisfactory price. The fourth-grade honey is usually put on the home market, and the best grades sent to the Eastern markets, therefore fancy grades

could not compete with the cheaper grades. He believed that a fancy grade could not be secured without the use of separators, and that a good share of the low-grade honey that was put on the market was produced without separators, or else by those who were not particular enough in their manipulation of the bees for the production of comb honey in the first-class grade. The latter should produce extracted honey.

The discussion that followed brought out the fact that many who extract do not take the care they should in allowing the honey to become thoroughly ripened. Many are known to extract the honey and young brood, and the milky substance that surrounds it, and all had a bad effect upon the honey.

Mr. Delos Wood contended that there was no harm in extracting honey before it was capped. He had practiced that plan for years, and had no trouble in selling his honey at the highest market price, and people who buy his honey always come back for more. Mr. Wood said that his honey was very thin when he extracted it, but he left it in the tank until it ripened to the proper consistency.

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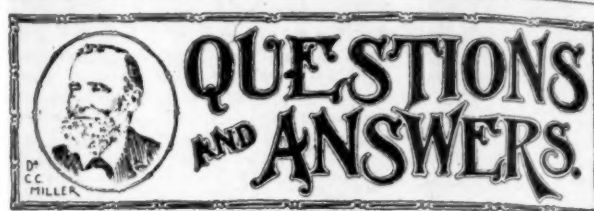
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ANSWER.—Your plan will not be likely to suit you. The bees will come back, to be sure, but that will not be the end of it. They will swarm out perhaps every day for several days, and a week or more after the first swarm issues there will be a young queen in the hive, the old one being killed, and then they will be more fierce to swarm than ever. After a time all the young queens but one may be killed, and there being no chance for her to get out to mate, you may have a drone-laying queen. In the meantime this large amount of swarming will take place with many if not all of the colonies, making a number of swarms out each day, often at the same time, and after the young queens are out

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Yes, Mr. Johansen, your considerations (four out of five of them) are excellent. Use the bees' natural impulse instead of resisting it; prevent swarming; keep the sections clean; protect the colony with chaff. As to utilizing more than one queen in a colony, that is still among the problematical things. But we fear that the hive resulting from churning these considerations in the Johansen brain will be rickety, and quite lacking in durability, altho quite expensive compared with the standard hives in use. If there is a swift and unmistakable "get there Eli" about it, when tried by others than the inventor, its faults can be borne, otherwise it will go under quickly. Twenty brood-frames below and a hundred sections above, look like business. But run as a side-storing hive pure and simple, that is hardly in accord with the first of the considerations announced. That bees incline to fill the quarters below before going above "depends" (depends tremendously) upon how big the quarters below are. And that all the eight sections in one frame of a side-storing hive "are apt to be in about the same condition," we find some difficulty in getting the conviction down, Mr. J. As to the three-queen-in-a-hive method, talk to us some more after you've actually run a dozen such colonies in your hive. We're tired rather quickly of experiences which are going realized. Pages 129 to 131.

SPREADING THE BROOD.

Mr. Aikin's plan of spreading the brood without it is an excellent plan—that is, if you wish to thing in that line at all. Done with sufficient care is warmer "after taking" than "before taking," great objection to that class of manipulations is. The only case I can think of where warning is new bark a little, you know) is a weak colony with amount of stores. Putting the wintered stores, inclined to drip if a squaw-winter should come next the entrance, and a nest that must have all keep it warm away back, might result in getting establishment robbed out. Page 132.

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Our Colorado friends seem likely to get into a squabble as to whether the bee-moth is or is not in that State. Peace, brethren! What's to hinder the moth from being carried to the State any day? And while it might not flourish as it does in a different climate, it's not likely it would immediately become extinct. Wise man would extinguish it before it Darwinized itself into a new variety. Page 124.

MR. JOHANSEN'S EXTENSION HIVE AND IDEAS.

Yes, Mr. Johansen, your considerations (four out of five of them) are excellent. Use the bees' natural impulse instead of resisting it; prevent swarming; keep the sections clean; protect the colony with chaff. As to utilizing more than one queen in a colony, that is still among the problematical things. But we fear that the hive resulting from churning these considerations in the Johansen brain will be rickety, and quite lacking in durability, altho quite expensive compared with the standard hives in use. If there is a swift and unmistakable "get there Eli" about it, when tried by others than the inventor, its faults can be borne, otherwise it will go under quickly. Twenty brood-frames below and a hundred sections above, look like business. But run as a side-storing hive pure and simple, that is hardly in accord with the first of the considerations announced. That bees incline to fill the quarters below before going above "depends" (depends tremendously) upon how big the quarters below are. And that all the eight sections in one frame of a side-storing hive "are apt to be in about the same condition," we find some difficulty in getting the conviction down, Mr. J. As to the three-queens-in-a-hive method, talk to us some more after you have actually run a dozen such colonies in your hive. We get tired rather quickly of experiences which are *going to be* realized. Pages 129 to 131.

SPREADING THE BROOD.

Mr. Aikin's plan of spreading the brood without spreading it is an excellent plan—that is, if you wish to do anything in that line at all. Done with sufficient care, the nest is warmer "after taking" than "before taking," and the great objection to that class of manipulations is obviated. The only case I can think of where warning is needed (must bark a little, you know) is a weak colony with an unusual amount of stores. Putting the wintered stores, more or less inclined to drip if a squaw-winter should come along, right next the entrance, and a nest that must have all the bees to keep it warm away back, might result in getting the whole establishment robbed out. Page 132.



PUBLISHED WEEKLY BY

GEORGE W. YORK & COMPANY,
118 Michigan Street, Chicago, Ill.

[Entered at the Post-Office at Chicago as Second-Class Mail-Matter.]

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IMPORTANT NOTICES:

The Subscription Price of this journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "Dec00" on your label shows that it is paid to the end of December, 1900.

Subscription Receipts.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows you that the money has been received and duly credited.

Advertising Rates will be given upon application.

VOL. 40.

APRIL 5, 1900.

NO. 14.



NOTE—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound. Also some other changes are used.

Bees Have Wintered Well, according to the general run of reports, there being quite a contrast between present reports and those given up to this time last year.

A Convenient Bee-Tree is that reported in the British Bee Journal in which the owner of the tree referred to "works" the bees located in it on a plan not generally followed; in fact, he first cut a good-sized hole in the tree so as to lay bare the combs, and by means of his pipe the bees were smoked off, and several slabs of honey cut out and appropriated. This done, the opening was covered by a sack nailed on, and the bees left to repair the loss as best they could. They got on very well, and the owner for several years has in summer helpt himself to honeycomb as wanted as before, and covers up his "honey-cupboard" by again replacing the sack.

Honey-Recipes.—We take the following from Gleanings in Bee-Culture, having been furnished by Mr. W. L. Porter, Editor Root vouching for the excellence of the coffee and taffy:

HONEY-CEREAL COFFEE.—Five pounds of fresh wheat bran; mix with 2 pounds of rye flour, 2 pounds of alfalfa honey. Mix the honey with 3 pints of boiling water. After the honey and water have come to a boil, pour into the bran mixture. Stir thoroly and knead to a stiff dough; put thru a domestic meat-grinder to separate them. Dry in a warm

oven. Brown the same as coffee. For a coffee flavor, add 2 pounds of the best Mocha and Java. Have it all ground, and put in air-tight cans for future use.

HONEY-TAFFY.—Boil extracted honey until it hardens in cold water. Pull until white. Any quantity may be used. One pound requires about 20 minutes' steady boiling. MARY C. PORTER.

HONEY-PASTE FOR PUTTING LABELS ON TIN.—Take 2 spoonfuls of wheat flour and one of honey; mix the flour and honey, and add boiling water to make right thickness. This is fine for labels, or wall-paper where paper will not stick with ordinary paste. W. L. PORTER.

The Langstroth Monument.—After \$100 or more had been raised for a monument, the matter was taken up by General Manager Secor, with a result that \$275 has now been reached, which will erect a fine shaft. Mr. E. R. Root, President of the National Bee-keepers' Association, requested Mr. Secor to add to his good work by writing a suitable inscription for the monument. This Mr. Secor has done in such a fine manner that American bee-keepers will be none the less proud of their poet-laureate. We reprint the inscription which appeared on page 200 of this journal for 1899:

INSCRIBED TO THE MEMORY OF

REV. L. L. LANGSTROTH,

"FATHER OF AMERICAN BEE-KEEPING,"

by his affectionate beneficiaries in the Art; who, in remembrance of the services rendered by his persistent and painstaking observation and experiments with the Honey-Bee, his improvements in the Hive, and the charming literary ability shown in the first scientific and popular book on the subject of Bee-Keeping in the United States, gratefully erect this monument.

Rest thou in peace. Thy work is done.
Thou hast wrought well. Thy fame is sure.
The crown of love which thou hast won
For useful deeds shall long endure.

All Should Join.—Mentioning the fact that the Wisconsin is the first association to come as a body into the National Bee-keepers' Association, Editor Hutchinson makes a good point when he says, in the Bee-keepers' Review:

"There is often an advantage even in numbers. When our representative, be he delegate, attorney, or manager, can say: 'I represent an organization of 1,000 bee-keepers' it has weight."

Care in Breeding is a matter receiving considerable attention nowadays. Not that professional queen-breeders alone are to be careful, but every producer of honey. Upon this point Ebenezer Skies talks some very good sense in the American Bee-Keeper. His statement that any bee that will gather honey will do for extracted honey needs some qualification, but the rest is all right. He says:

"Any bee that will gather honey will do for extracted honey, but not so for comb. Only those colonies should be selected that are nearest perfect as comb-builders, and whose cappings are the whitest. Only such colonies as these must be used as breeders. No drones must be allowed to fly from any colony, except those having these desirable qualities. No queens must be reared from any but colonies having these qualities.

"If this is done persistently, and every queen destroyed, the work of whose progeny falls below the standard you have set, for a few seasons, you will have an apiary of thorobred, fancy comb-honey producers—that is, as far as the bees go."

Honey for Poultrices hardly receives the attention it deserves. A prominent British bee-writer, Mr. W. Woodley, gives the following in the British Bee Journal:

"We have here two cases for which I am supplying honey. In one case (a damaged elbow) a blacksmith was screwing a nut on the underside of a wagon, when the

spanner slipped and his elbow struck the wheel, causing injury to the bone. The man was under a medical man for two or three weeks, when, as the arm was still getting worse, his doctor thought it best for him to go to the hospital and undergo a surgical operation, which included scraping the bone of the arm. The hospital being full, and the man having to wait his turn in consequence, he was induced, on my recommendation, to try honey-poultices, which, in about ten days, so far healed the arm that the doctor does not now consider it necessary for him to go to the hospital at all.

"The other a very bad case of a gathered thumb caused by a thorn. In this instance the sufferer received more benefit from honey-poultices than from any other remedy. I mention these facts as connected with usefulness of honey, and if we could get the medical profession to advocate the use of honey either as food or otherwise, we should soon have the demand equal to the supply."

A New Idea in Wax-Extractors.—When Editor Root was in Colorado, among the things he saw at the home of R. C. Aikin was a mammoth solar wax-extractor, in which there was a new departure by way of applying bottom heat, a principle that can equally be employed in the smallest solar extractors. Mr. Root discourses as follows in *Gleanings in Bee-Culture*:

Now, then, for the solar wax-extractor. As will be seen, it looks very much like a small greenhouse. In fact, it is built a good deal on the same plan. The floor or pan of the extractor, so to speak, is built right over a brick oven, so that not only solar but artificial heat may be utilized.

"Why," said I, "Mr. Aikin, what is the sense of having artificial heat when you have so many days of bright, strong sunshine, with an atmosphere so clear that there is neither mist nor rain a greater portion of the year?"

"Well," said Mr. Aikin, "try it for yourself. You will discover that you can not only do better work, but secure much more wax out of the dirt and refuse by such an arrangement than you can by either source of heat independently. The heat from the sun acts only on the top of the mass. The melted wax runs down and lodges in the refuse, collects, and stays there. By my plan I apply a gentle heat *beneath* by means of the brick flue, or oven as you see. The heat from *above* and the heat from *below* cause almost every particle of the wax to flow out of the refuse, and run into the pans in front."

Bees on Shares is considered by Editor Root in reply to a question in *Gleanings in Bee-Culture*, and he asks for an equitable plan, if there is one, whereby all disputes and ill-feeling may be avoided, and for "a form of contract that will be iron-clad, and afford full protection equally to both parties." In the meantime, Mr. Root gives the following as the general custom:

"When bees are kept on shares it is the rule for both parties to share equally in the profits, and in the expenses and losses. The time of the one who contributes the labor is supposed to offset the capital of the other in the form of bees, hives, implements, etc. Carrying this principle out, each party pays for half of the new hives, sections, shipping-cases, honey-barrels, honey-cans, etc.; and each party receives half the proceeds of honey and bees sold. At the end of the season the increase is divided equally between them. For instance, if there is an increase of 50 colonies from swarming, each would have 25 colonies, including hives and a half-interest in the supplies left over. If at the beginning of the season the owner has 25,000 sections, the one who is supposed to work the bees is expected to pay half their cost, including freight.

"But if half the bees die during winter, notwithstanding the fact that the operator puts them up the best he knows how, carrying out the same rule, he should make good half the loss of the bees. And right here is where many troubles arise. The operator is apt to complain, and with a fair show of justice, that he ought not to be expected to pay for bees that were lost during winter that were not his legally. But here comes the owner, and says that, if his partner had taken care of the bees, no such loss would have occurred, and then there is a row. So it is well to have this particular point safely covered."



To Clean Cappings of Honey put them in a vessel of warm water, stir well, then squeeze the wax into balls with the hands. In the evening feed the honey-water to the bees.—*Biene und ihre Zucht*.

Drone-Layers and Foul Brood.—Ludwig says in *Leipz. Bztg.* that colonies with laying workers or a drone-laying queen form good soil for the prompt introduction of foul brood. Another reason, if true, for not fooling away time trying to build up such colonies.

Bees Biting Cappings.—F. Greiner said in the *American Bee-Keeper* he had trouble in this direction when using bee-escapes at the close of the season. Editor Hutchinson doesn't have the same trouble, and Mr. Greiner replies that locality, weather, and strain of bees make the difference.

The Value of Bees to the Horticulturist and fruit-grower, or rather an evidence that their value is becoming known, was shown at this convention by one of the horticulturists, a man who owns extensive orchards, coming into the convention and offering a site for an apiary free, to any bee-keeper who would establish an apiary upon it.—Report of the Wisconsin convention in the *Country Gentleman*.

To Stop Robbing, it is recommended to put sand and sawdust in the entrance of the robbers. A writer in *Praktischer Wegweiser* says the robbers become so intent upon cleaning up their doorway that they forget all about robbing. Would that succeed with Yankee bees? One trouble is, that it is not always easy to find where the robbers are, and their home may be a mile from the scene of their depredations.

Different Colonies Gathering Different Honey.—Being asked why one colony in an apiary produced white honey of a delicate flavor, while another with the same chance produced only amber honey of rather strong flavor, Editor Root in *Gleanings in Bee-Culture*, doesn't pretend to know, but says he found in New York that blacks and hybrids showed partiality for buckwheat, and pure Italians for clover or basswood. He suggests as a possibility that individual colonies, like individual bee-keepers, have individual tastes.

"Natural Swarming has a fascination about it that no mode of artificial increase can possibly have."—G. M. DOOLITTLE. I don't in the least doubt that's true from your standpoint, Bro. Doolittle. Years ago the issuing of a swarm meant to you desired increase, and a glamor was thrown over the whole affair that will never fade away. With me there's a fascination about artificial increase; but there never was any about natural swarming. The announcement of a swarm fascinates me just about as the announcement that the cows have broken into the garden.—*Stray Straw in Gleanings in Bee-Culture*.

Greasy Sections (in this case meaning sections that look greasy or watery for lack of an air-space between the honey and capping) are having considerable discussion in *Gleanings in Bee-Culture*. It started from advice given in this journal to pinch the head of the queen in a colony producing such sections. W. M. Whitney and Dr. D. A. McLean are confident that the trouble lies, not in the queen, but in conditions and character of the honey-flow, urging that such greasy sections contain the finest honey. On the other hand, Mrs. A. J. Barber is just as positive in holding "the queen responsible for almost everything that goes wrong—greasy sections and all."

"Advertise Your Honey," says R. C. Aikin in the *Bee-Keepers' Review*. One of the ways is to put name and address on the case. He does not agree with Mr. Mandelbaum that the name should be there and not the address. The middleman may not want the address there, but it is the right of the producer to have it there. The retailer and the consumer have a right to know where their goods come

from. A retailer has a right to order direct from the producer if he sees fit, and a producer has a right to the reputation his production gains.

In the same paper W. A. H. Gilstrap says: "Perhaps the strangest part of Mr. Mandelbaum's article is where he wants the cases marked so as to protect him, and yet allow him to sell alfalfa and basswood for white clover. I don't know what you call that."

And again in the same journal, Frank Rauchfuss says: "We not only want our names on the cases, but also the addresses, so that people will know where the honey has been produced. We recognized that this is the only way to establish a reputation for our product."

Bee-Keeping in Switzerland.—As every traveler knows, honey is much in evidence at almost every meal in Switzerland. The Republic has an excellent bee-school at Zug, where there are usually 25 students undergoing training in the brief honey-producing season, which (as far as commercial production goes) extends to but three or four months—the later stores being always allowed to remain in the hives for winter. The bee most valued is the small brown German variety, which beats the Italian and Carniolan sorts hollow in foraging in hot weather. I regret to see that complaints are rife as to the import of adulterated honey, and need hardly say where the complaint chiefly lies. Scarce one of the old-fashioned straw-skeps is now in use, the most approved bar-hives being almost universal.—Country Gentleman.

A New Bee-Glove, devised by C. I. Graham, is thus described by Editor Root in *Gleanings in Bee-Culture*:

"The wrist portion of the article is made of some stout strong cloth and elastic material the same as shown in shoes. Instead of shortened glove-fingers every other finger passes thru small iron rings; and these are said to be sufficient to keep the protector tightly over the back of the hand. The elastic rubber causes the wrist portion to fit tightly, preventing any bees from getting up the sleeve, and the rings give the freest possible use for the fingers and palms of the hands.

"I have not tried these protectors any more than to put them on. I don't know, but I think I would not on a hot day like to have a pair of tight corsets, so to speak, around my wrists. I have used with a great deal of satisfaction a pair of loose straw cuffs to prevent soiling of my sleeves, and to keep bees from crawling up my arms."

Strong Colonies for Comb Honey was the slogan at the Wisconsin convention. A report in the *Country Gentleman* says:

"Mr. C. A. Hatch argued for the 10-frame brood-nest in the spring, in order to rear all of the bees possible. At the opening of the honey harvest he would have every comb in the brood-nest of a colony that was to be worked for comb honey, filled with brood, even if he had to rob some other colonies in order to do this. He would place the unsealed brood at the outside of the brood-nest. This prevents the filling of the outside combs with honey, as the harvest (from basswood) is over before the brood has hatch from the outside combs. The center of the brood-nest will not be filled with honey. In a debate between two members, on spring management, one advocated that all colonies to be run for comb honey should be populous, even at the expense of weaker colonies, by robbing some of the latter of combs of brood if necessary. He believed in concentration instead of equalization."

Cleansing Beeswax is thus given by F. Greiner in the *American Bee-Keeper*:

"I happened to have an old 5-gallon oil-can; from it I cut the top and put in a small brass-faucet about three inches above the bottom. The can was then ready for work. It was first filled with water up to within one inch of the faucet; when the water was hot, the wax, in its crude state, was added little by little as it kept melting, till the can was nearly full. When all was melted, a cover was put on the dish, moved to the back part of the stove, or the wick of the oil-stove pretty well turned down. My aim now was to keep the melted wax in a quiet state for some little time, until the agitation of boiling had subsided. Still I did not want the wax to cool off very much, but give it time that any impurities might settle. After a lapse of about 30 minutes I commenced drawing off the wax, running it into slightly oiled new-tin basins; all of these when full were

set to one side and kept covered so that the cooling process might go on slowly, thus preventing the cracking of the cakes.

"Moulded in new tin the cakes came out much brighter than when using any old rusty basins, as I have done before. I was greatly pleased with the appearance of the wax, and so were others. Having some on exhibition at the fair, some experienced bee-keepers asked me repeatedly how I managed my wax, whether I had varnished it, etc. For that reason I make special mention of this point. All wax that would run from the faucet without tipping the can up, came out perfectly clean, and none of the cakes, when cool, had any sediment. That which did not run out was allowed to cool in the can, slightly tipping the can back, to leave the faucet above the top surface of the wax. As soon as hardened sufficiently, and yet before the wax had become really cold, the slab about an inch thick was taken out and dirt and other impurities were scraped off from the bottom. I melted this cake with the next batch each time, and thus managed I had only one small cake of inferior wax in my whole lot of 150 pounds."

Improved Benton Shipping-Cages were mentioned by Mr. Benton at the Ontario Co., N. Y., convention, as reported in *Gleanings in Bee-Culture*, as follows:

"As stated, the customary cage is made out of an oblong block with three holes bored in it, and overlapping each other. This feature Mr. B. objected to. A thin wall should be left standing between these holes, connecting them by a smaller perforation thru the walls, which may be effected by boring a small hole from the end into the cage. Formerly the sides of the cages were made flat or smooth. Packed tightly in the mail-bags it might cause a lack of ventilation, which can be easily insured by grooving the long sides of the cages, and boring, *not punching*, the little holes for ventilation from the grooves into the cage. By thus *ventilating only chamber I*, the bees may retreat to compartment II, if they should find it more congenial there. In fact, here they will generally be found clustering."

Wet-Sheet Pack for a Severe Bee-Sting.—I want to say a word of comfort to those who suffer from severe itching, resembling hives, all over after being stung by bees, especially in warm weather. My daughter, aged 12, was stung by a bee last summer, and in half an hour her body was as red as it could be, and swelled up in blotches and lumps of all sizes, and she was in such agony that she cried out aloud. My wife got a sheet, wrung it out of cold water fresh from the well, and spread it upon a bed, and, after taking off all of the child's clothes, she laid her upon it and covered the ends of the sheet over her and patted them down very closely. She then covered her up with a lot of quilts. In 15 minutes she was asleep, and slept over an hour. When she awoke she felt quite well, and the perspiration was flowing freely. After wiping herself carefully with a soft towel, she dressed, and felt as well as ever.—EDW. SMITH, in *Gleanings in Bee-Culture*.

Some Big Yields of Honey are reported in the *Australian Bee-Bulletin* as follows:

"Some seven or eight years ago Mr. Vogel, of the Paterson, reported that one colony with its swarms had produced 1,000 pounds of honey.

"Mr. Peterson, late of Wattle Flat, asserted that one year his colonies averaged 750 pounds apiece. It was not, however, satisfactorily proved. The year previous he had no honey and had to feed.

"Mr. Maxwell, of Albury, informed us that one year he had an average of 500 pounds per colony.

"Mr. Kelly, last year, had 17 tons from 70 colonies. These big returns, as far as we can learn, are never followed up. The following year, or the previous one, are in most cases poor ones."

Honey and Almond Cake.—Boil one pound of honey. After it has boiled, and while still hot, stir in one pound of flour, $\frac{1}{4}$ pound of coarsely chopt almonds, browned in $\frac{1}{4}$ pound of sugar (heat the sugar *without water*; when it has melted stir in the nuts; allow it to cool, and then separate the nuts so they will mix well). Add one teaspoonful of ground cinnamon, $\frac{1}{2}$ teaspoonful of ground cloves, a handful of chopt citron, and a scant teaspoonful of soda dissolved in a little water. Mix well, spread on a floured tin, and bake. While still warm cut into squares.—E. H. SCHAEFFLE, in *Gleanings in Bee-Culture*.

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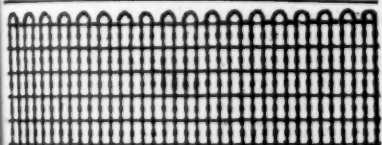
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GENERAL ITEMS

The South Dakota Convention.

The South Dakota bee-keepers assembled for the purpose of organizing a State bee-keepers' association, at Yankton, Jan. 25, 1900, at 1:10 p.m., with R. A. Morgan in the chair, and E. F. Atwater as secretary.

A committee of three was appointed by the chairman to draft a constitution and by-laws, composed of Messrs. Harmeling, Dole, and Chantry.

A discussion of various points in relation to bee-culture was then taken up. Mr. Danielson opened a discussion in regard to time of putting queen-cells in nurseries; it was generally thought that cells should not be put in nurseries until "ripe," altho the reason for this was not clearly understood. Mr. Hobbs opened a discussion in regard to the best packing for outdoor wintering, chaff or any light porous substance seeming to be preferred. Mr. Burke gave his method of producing comb honey. Some wintered their bees exclusively in the cellar, while others have had more or less success with outdoor wintering.

After a 5-minute recess, the committee on constitution and by-laws reported. The constitution was discussed and adopted article by article, after slight changes in wording, etc.

The chair appointed Messrs. Danielson, Harmeling, and Waterman as a committee on districts. On motion, Mr. Chantry was instructed to write out rules of procedure, which were adopted. The following amendment was carried: "The executive committee shall prepare a program for each meeting, which shall be sent to all members at the time of notifying them of the time and place of the next meeting."

EVENING SESSION.

The meeting was called to order at 7:30 o'clock by Pres. Chantry. The committee on districts nominated Mr. Hobbs for vice-president of the Yankton district, Mr. Chantry the Meckling district, and Mr. Harmeling for the rest of the State. All were duly elected.

It was decided that this association join the National Bee-Keepers' Association as soon as possible, action in the case to be left to the executive committee. Any one may receive and forward money from new members. It was voted that Mr. Morgan and Mr. Chantry represent the Association at the Farmers' Institute at Vermillion, and that the executive committee have the power to act in all such cases.

Mr. Danielson presented and explained several new or improved appliances, combined hive-stand, moving apparatus, and entrance-closers; the Chantry hive-knife, improved by Danielson, was also shown. The Chantry hive-tie was exhibited and explained. Miss Danielson, at the request of the Association, sang "The Hum of the Bees in the Apple-Tree Bloom."

Mr. Morgan offered to secure the

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COMB FOUNDATION FROM PURE, YELLOW WAX.

Send for price-list of Queens by the dozen; also sample of Foundation. **J. L. STRONG,**
14A1t CLARINDA, Page Co., IOWA.

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have all the latest improvements, are sold at very low prices and guaranteed to please every customer. Send 6 cents for our 150 page catalogue, which contains full descriptions of our extensive line and tells how to raise poultry successfully. Plans for poultry and brooder houses.

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pays the buyer because they are strong, vigorous, healthy and will breed healthy stock. All the stock we ship is farm bred. We have the largest pure bred poultry farm in the Northwest. Our mammoth poultry guide explains all and tells **HOW TO MAKE BIG MONEY WITH POULTRY**. Best and largest book out. Worth \$25, but sent postpaid for 15c. John Bauscher, Jr., Box 94, Freeport, Ill.

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The **MONETTE** Queen-Clipping Device is a fine thing for use in catching and clipping Queens wings. We mail it for 25 cents; or will send it **FREE** as a premium for sending us **ONE NEW** subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device. Address,

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Root's Goods at Root's Prices—

POUDER'S HONEY-JARS and everything used by bee-keepers. Prompt Service—low freight rate. Catalog free. **WALTER S. POUDER,**
512 Mass. Ave., INDIANAPOLIS, IND.

Please mention Bee Journal when writing.

printing of articles on bee-culture in the papers of Vermillion.

The convention adjourned subject to the call of the executive committee.

E. F. ATWATER, Sec.

Bees Had a Good Flight.

On March 17 my bees had a grand cleansing flight in the warm sun that for the first time prevailed since last year. Old Sol outdid himself on this occasion as a sort of apology for his prolonged absence in material force.

Yes, sir; the bees had a perfect picnic and fully enjoyed it. I took a peep into their sanctum to see how they fared for commissaries, and found but two frames empty, which I removed and substituted with two good combs that I saved last fall with this very object in view.

They remained all winter on the summer stand with an ordinary box inverted over the hive, which evidently afforded sufficient protection. As soon as practicable—perhaps the latter part of April—I intend to divide it into two colonies, and, by feeding more honey, have a couple of Italian families that, I believe, will give an excellent account of themselves. I am making big calculations on a fine honey season, and I believe that bee-keepers who are discouraged because of recent failures, and hesitate about looking sharply to their bees and needed supplies, will miss it very big. They who expect nothing, generally get what they anticipate. They who try persistently never entirely fail, and often hit it just right.

DR. PEIRO.

Cook Co., Ill., March 24.

The Extension Hive.

Will "West Ontario, Canada," kindly give us the benefit of his opinions on features of the "Johansen extension hive," which he may think impractical? A full, explicit explanation is desired.

H. JOHANSEN.

Favors Painting Hives.

C. Davenport's views on painting hives, on page 821 (1899) reminded me that it would be only fair to the subject to admit that I am now in favor of painting hives. A few years ago I was induced by a prominent bee-keeper to try unpainted hives. I knew they were more porous than painted hives. The first year I was well pleased with them and soon had about 40 in use. But, alas, time told on the color and other qualities of the hives. In those unpainted, dark-colored hives the heat in those exposed to the sun was much intensified; they crackt, pulled apart, and got out of fix generally. Last summer and fall we painted most of them, and the rest will be painted as opportunity occurs.

I have hives that were painted 26 years ago, and repainted once, and they are practically new. I should say that 3 years on an unpainted hive is equal in destruction to 25 if kept painted.

Then, the looks—the appearance—ought to count for not a little. Like Mr. Davenport, I now paint my hives white.

I cannot quite agree with those who advocate painting inside. I have experimented pretty thoroly in that re-

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Read what J. I. PARENT, of Charlton, N. Y., says: "I cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey racks, 500 brood frames, 2,000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it with this Saw. It will do all you say it will." Catalog and price-list free.

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Tells all about Bees in California. The yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by an expert bee-man. Besides this the paper also tells you all about California Agriculture and Horticulture. \$1.00 per year; 6 months, 50 cents. Sample copies, 10 cents.

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If you want the most prolific Queens—if you want the gentlest Bees—if you want the best honey-gatherers you ever saw—try my Albino. Untested Queens in April, \$1.00; Tested, \$1.50.

12A26t J. D. GIVENS, LISBON, TEX.

Here we are to the front for 1900 with the NEW

CHAMPION CHAFF-HIVE,

a comfortable home for the bees in summer and winter. We also carry a complete line of other SUPPLIES. Catalog free. **R. H. SCHMIDT & CO.** Sheboygan, Wisconsin.

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5 Cents Each for Names.

State where you saw this ad, send 10 cents and the names of 3 neighbors who raise poultry, and we will send you, for one year, our monthly paper containing 20 or more pages each issue. A 224-page complete poultry book sent free if you send 15 cents extra.

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THE MODERN FARMER & BUSY BEE.

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9Ctf

spect, but the results have been unsatisfactory. I account for it in this way: The oil absorbed by the wood from painting both inside and out, together with the moisture taken up by the wood in cold, damp weather, make the hive a pretty good conductor of heat, and hence the temperature of bees is severely taxed. I am aware that a hive unpainted inside will at times become saturated with water, but it dries quickly.

S. T. PETTIT.

Ontario, Canada.

Dry Year in Southern California.

The bees will do well if they are able to "keep the wolf from the door" of their own homes. And if they could see what is ahead of them for the long dry year to come, I fear they would emigrate in a body—and it might be just as well for the bee-keeper in the end.

I see by Gleanings in Bee-Culture that Rambler was getting blue over the situation. As that was Feb. 9, I think by this time he must be ready to cut up into chunks for laundry use. And I also note that he has been pestered again by one of those deaf people. I had hoped to be able to meet Rambler some time, as I journeyed to the "City of the Angels," but as I am afflicted by impaired hearing myself, I fear I will have to deny myself that pleasure; but as my wife is a greater talker than I am, I can send her, and I imagine I hear him exclaim in despair, "Merciful heavens!"

The San Diego weather bureau reports the rainfall to date 3.11 inches, and normal seasonal deficiency, 5.81 inches, which explains the conditions here.

F. C. WIGGINS.

San Diego Co., Calif., March 26.

Expect All to Winter.

Our 84 colonies we think are going to pull thru the winter nicely; at least all indications point that way. Bees have had several flights this month, altho at this date there is still good sleighing.

CRAWFORD BROS.

Osceola Co., Mich., March 26.

A Young Bee-Keeper's Report.

We have had a very good winter for bees here. We put into winter quarters 103 colonies and they are all in good condition, except about 12, and they are not bad. We always winter our bees on the summer stands. They are wintered in the 10-frame Langstroth hives. The shell in which they are packed is 4 inches larger each way and 8 inches deeper than the brood-chamber, and that space is filled with chaff which makes it very warm; and for a roof it is in the form of a shanty with shingles on it.

The entrance is the full width of the brood-chamber, and is left open all winter. I tried to contract the entrance when I first commenced, but I soon found out that they didn't get enough air.

I always tip the hive a little to the front so as to let the moisture run out if there is any; the hives are 6 or 8 inches from the ground, as the bees winter lots better that way. I have been wintering a few in two stories (and they seem to come out better than in the single brood-story)—with the

Bee-Supplies from Lewis! Thousands of Bee-Hives! Millions of Sections

Ready for Prompt Shipment.

We manufacture Five different styles of hives, The Dovetailed, Wisconsin, Improved Lang. Simp., Grim-Langstroth and Champion Chaff. All are Leaders and UP-TO-DATE in every respect. Excellent material and finest workmanship.

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is undeniably the best and most instructive publication of its kind ever issued. It opens up with a resume on the size and magnitude of the poultry industry and follows with "Poultry Raising on the Farm," "Poultry and Incubators on the Farm," "Feeding Specially for Profit," "Raising Broilers for market," "Successful Egg Farming," "Capons for Profit," "The Poultry Dock Industry," etc., etc. It tells incidentally about the old standard RELIABLE INCUBATORS and BROODERS and the results their use have produced, the success to which they have helped their users, etc. Tells all about the new "wrinkles," new improvements, new machines, etc. We send The 20th Century Book to all



Inquirers on receipt of 10 cents to cover postage.

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Please mention Bee Journal when writing.



DR. MILLER'S HoneyQueens

One Untested Queen Free as a Premium for sending ONE New Subscriber to the American Bee Journal for one year.

We have been fortunate in making an arrangement with DR. C. C. MILLER—the well-known honey-specialist—to rear queens EXCLUSIVELY FOR US DURING THE

SEASON OF 1900. These Queens will be mailed in rotation, beginning about June 1, so "first come first served." We are ready to book orders now.

The Queens Dr. Miller will send out on our orders will be precisely the same as those he rears for his own use, so of course they will be from his best stock. His best colony in 1899 had a queen reared in 1898; May 5, 1899, it had brood in 4 frames, and he gave it at that time a frame of brood without bees. It had no other help, but May 25 a frame of brood with adhering bees was taken from it, and the same thing was repeated June 3, leaving it at that time 5 frames of brood. It stored 178 sections of honey, weighing 159 pounds (and that after July 20, in a poor season), being 2 2/3 times the average yield of all his colonies. A point of importance is the fact this colony did not swarm, and an inspection every week or 10 days showed that at no time during the entire season was there even so much as an egg in a queen-cell. Dr. Miller expects to rear queens from this one during the coming summer.

The demand nowadays is for BEES THAT GET THE HONEY when there is any to get, and Dr. Miller has such bees. You will want to have a queen from his best, we are sure.

Do not send any orders to Dr. Miller, as all orders MUST come thru us, according to our agreement.

Remember, send us \$1.00 for ONE NEW SUBSCRIBER to the American Bee Journal for one year, and YOU will get ONE OF DR. MILLER'S UNTESTED HONEY-QUEENS FREE AS A PREMIUM. This offer is made only to our present regular subscribers. Orders for queens to be filled in rotation, beginning about June 1st.

Address all orders to GEORGE W. YORK & CO.,

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No. 606—Canopy-Top Surrey, with side curtains, fenders, lamps, storm apron, sun shade and pole or shafts. Price, \$63. As good as sells for \$35 more.

nation and guarantee everything. Send for our large illustrated Catalogue before buying. IT'S FREE.

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on an inferior vehicle or harness. Your life and that of your family depends upon their quality and reliability. You can't tell very much about the quality of a vehicle by simply looking at it. The paint and varnish effectually hides the quality of material. Vehicle must be bought largely on faith—faith in the honesty of the manufacturer.

WE HAVE NO AGENTS

but have been selling vehicles and harness direct to consumers for twenty-seven years. In fact we are the largest manufacturers of vehicles and harness in the world selling to the consumer exclusively. These facts speak volumes for the quality of our goods and our method of doing business. You take no chances; we ship our vehicles and harness anywhere for examination.



No. 75—Single collar and harness, with nickel trimmings. Price, \$14. Good as usually sells for \$20.

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12E4t BRANTFORD, ONT., CANADA.

Apiary Bee-Hives,

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F. A. SNELL, Milledgeville, Carroll Co. Ill.
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We have spent \$4,000 on our new book, "How to Make Money with Poultry and Incubators." It tells it all. Leading poultry men have written special articles for it. 192 pages, 8x11 in. Illustrated. It's as good as gold. —and it's the best. Out hatch any other machine. 16 page circular free. Send 15c. In stamps for \$4,000 book No. 50.

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PACIFIC RURAL PRESS,
330 Market Street, SAN FRANCISCO, CAL.

The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



(THIS CUT IS THE FULL SIZE OF THE KNIFE.)

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.10, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00.) We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

GEORGE W. YORK & CO., 118 Mich. St., Chicago, Ill.

Please allow about two weeks for your knife order to be filled.

honey in the top story, and empty combs in the bottom story. All I have to do is to make a rim the same size as the outside shell, to sit on top. If any one wishes to try this experiment in wintering in two stories, we can explain it in another way.

I am 13 years of age.

MISS EMMA BANKER.
Brown Co., Minn., March 19.

A Minnesota Report.

This part of Minnesota (a little south of central) is favorably endowed by nature for keeping bees. Basswood, white clover, and a variety of honey-producing wild flowers abound in the most favored places. Farmers are beginning to sow alsike clover, and find that it grows well. An occasional stalk of sweet clover seen in gardens and elsewhere, stands as proof that their kind will do well here.

I would guess that we have about 1,000 colonies of bees within a radius of 10 miles from here. A great many of these are kept in a rude way. I commenced in the bee-business last spring with 11 colonies. One of these was weak, and "dwindled out," so I had only 10 to begin the season with. These increased to 23, and gave a surplus of about 400 pounds of comb honey. The season for this place was not very good.

We have a good market here at home for comb honey at 15 cents per pound.

Bees seem to be wintering well here this winter. They will need to be in winter quarters about two or three weeks yet.

From my experience last spring I learned that early breeding can be helped along to protect them in some way to keep them warmer. For one thing, use a pad or cushion of some kind over the brood-frames. Perhaps nothing would answer better than a chaff cushion. But since the present age of "blowers," chaff is a scarce article. As a substitute I think of trying bran. I have an excess of supers, and mean to utilize them to hold the bran. I will tack thin muslin on the inside of the super, and let it sag downward to a level with the bottom; then fill in enough bran to make a warm cushion. The brood-frame cloth will intervene so the super-cloth can not be waxt down. In this way it can be put off and on with convenience, and even used over the section super during the early part of the honey-flow to protect the bees during the cool nights, so common in this part until late in the summer. If I am wrong about substituting bran for chaff, I will be pleased if some one will kindly inform me.

I believe bee-keeping is one of the fine arts, and to keep abreast with the times one should take literature on the subject. Another thing, I believe the life and activity of the bees in an apiary will be increased by adding an occasional fine queen from another yard.

E. S. ROE.
Todd Co., Minn., March 26.

Mild Winter, Smelter Smoke, Etc.

Spring is with us once more, the bees are humming, the birds are singing, and the bee-keepers are hopeful. They are looking into the future with renewed confidence, and why should they

not, when all nature is putting on new life? even seedtime and harvest do not exhilarate the human family with as much joy and hope as the glorious spring. The beautiful, balmy spring-time comes as a joyous gladdening of the heart from the winter of our discontent.

But while we greet with pleasure the return of spring, we can not complain very much of grim winter this time, for we have had a mild and not a very unpleasant winter; and the bees in the greater part of the State have wintered fairly well; the indications for good crops and a good honey-flow are encouraging. The weather here now is beautiful, it is like the month of May, but last year the month of May was like March, with rain, snow and frost, or cold weather, nearly the entire month, causing the bees to die off in many parts of the State, instead of building up as they otherwise would have done, and this caused a partial failure of the fruit crop and the honey-flow. But this year it is quite the reverse—the bees are carrying in pollen, the buds are out, and a few blossoms on the hillside, and the outlook for our bee-keepers having strong colonies are favorable; we hope to hear of a successful year for them.

But I regret to say that with all the encouraging indications some of our bee-keepers who had the misfortune to be located in the wake of the smelters, lost the greater portion of their bees in the fall and winter. When other conditions are favorable the bees appear to get along all right in the spring, but along in August the poisonous smoke seems to settle on the bloom, and as the bees visit the blossoms it appears to affect them so that they crawl on the ground and die in such numbers that there is not enough bees left in the hive to stand the winter, and the bees seem to be in such poor condition that to double them up does not seem to help them much. The evidence in regard to the destructive effects of the smoke is pretty conclusive, for we find that near the smelters no bees will live any length of time at any time of the season, that is, within a radius of a mile or two, and it has been proven that cats, dogs and stock pasturing in the vicinity have died from the effects of the smoke; and in the direction that the smoke most often blows, the bees sometimes die from its effects thru the fall and winter, 10 miles off. As I have stated, the bees are not the only sufferers, hence the situation is getting to be a serious one, and something should be done to have this poisonous, destructive smoke consumed, condensed, or settled at the works instead of being scattered broadcast as it now is. To say the least, it is an outrage on the people, and something should be done for its suppression.

E. S. LOVERSV.

Salt Lake Co., Utah, March 15.

Convention Notice.

Chicago.—The Chicago Bee-Keepers' Association will hold its regular semi-annual meeting in Wellington Hall, 70 N. Clark St., Chicago, Ill., April 6, 1900, afternoon and evening. The meeting will be called to order at 1 p.m. Dr. C. C. Miller is expected to be present if his health will permit. Mr. E. R. Root has been invited, also Mr. N. E. France, and others. A good time may be expected by all. Let every one come, especially the ladies.

Park Ridge, Ill. HERMAN F. MOORE, Sec.

Yellow Sweet Clover Seed

WE HAVE IT AT LAST!

We have finally succeeded in getting a small quantity of the seed of the YELLOW variety of sweet clover. This kind blooms from two to four weeks earlier than the common or white variety of sweet clover. It also grows much shorter, only about two feet in height. It is as much visited by the bees as the white, and usually comes into bloom ahead of white clover and basswood. We offer the seed as a premium

A QUARTER POUND FOR SENDING ONE NEW SUBSCRIPTION.

So long as it lasts, we will mail a quarter pound of the seed to a regular paid-up subscriber who sends us ONE NEW subscriber for the American Bee Journal one year, with \$1.00; or ¼ pound by mail for 30 cents.

We have been trying for years to secure this seed, and finally succeeded in getting it. It is new seed, gathered last season by an old personal friend of ours, so we know it is all right. But we have only a small supply. When nearly out we will mention it.

GEORGE W. YORK & CO.,

118 Michigan St., - CHICAGO, ILL.

BEES QUEENS

Smokers, Sections, Comb Foundation And all Apian Supplies cheap. Send for FREE Catalogue. E. T. FLANAGAN, Belleville, Ill.

Please mention Bee Journal when writing.

Rocky Mountain Bee-Plant Seed!

(Cleome integrifolia.)

...FREE AS A PREMIUM...

The A B C of Bee-Culture says of it: "This is a beautiful plant for the flower-garden, to say nothing of the honey it produces. It grows from two to three feet in height, and bears large clusters of bright pink flowers. It grows naturally on the Rocky Mountains, and in Colorado, where it is said to furnish large quantities of honey."

We have a few pounds of this Cleome seed, and offer to mail a ¼-pound package as a premium for sending us ONE NEW subscriber to the American Bee Journal, with \$1.00; or ¼ pound by mail for 40 cents.

GEORGE W. YORK & CO.

118 Michigan St., CHICAGO, ILL.

We call the attention of our readers, particularly the ladies, to the advertisement of Crofts & Reed, Chicago, which makes its first appearance in this issue. This firm make a very fine line of toilet preparations, such as soaps, perfumes, extracts, etc., and have adopted a unique plan of selling. As will be seen by the advertisement, they mail free a handsomely illustrated book of premiums—these are chiefly practical household articles, such as furniture, rugs, lamps, etc., as well as watches, cameras, etc., for the boys and girls. The offers based on these premiums are astonishingly liberal. From the fact that Crofts & Reed are willing to send both the goods and the premiums for examination and on trial for 30 days if desired, it would seem that such confidence in their goods on their part ought to beget the confidence of their customers. We are sure many readers of the American Bee Journal will find it advantageous to secure without delay one of the premium lists. Please address Crofts & Reed, 842-850 Austin Ave., Chicago, Ill., and mention this journal.

The Emerson Binder

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

GEORGE W YORK & CO.

118 Michigan Street, - CHICAGO, ILL.

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, March 19.—We quote best white comb at 15c. An occasional small lot of fancy sells at 16c; off grades of white, 12@14c; ambers, 10@12c. Extracted, 8@9c for fancy white; 7@8c for amber; 6@7c for dark grades. Beeswax, 27c.

Receipts of honey are larger and the demand is not as good as it has been.

R. A. BURNETT & Co.

CINCINNATI, March 3.—There is some demand for extracted honey from manufacturers at 7@7½c for amber and Southern; clover, 8@8½c. Comb honey is selling firm at 14@16½c in a small way. Beeswax, 25@27c.

C. H. W. WEBER,

Successor to Chas. F. Muth & Son and A. Muth.

LOS ANGELES, March 1.—1-pound frames, 12½@15c; 2-pound cans, 2 dozen in case, per dozen, \$2.50; 2-pound glass pails, per dozen, \$2.50. Extracted, water white, 60-pound tins, per pound, 8½c; light amber, 7½@8c; dark amber, 7½c. Beeswax, 25@26c.

The prospect for a crop is very bad. Small lots in the hands of wholesale houses are firmly held.

BOSTON, March 9.—Our honey market is showing some signs of lower prices, altho the stock on hand is not large. At the same time prices are so much higher than previous years that the trade have taken it very slowly and the results are that the holders are willing to range prices quite a little in order to move stock on hand. Prices range: Fancy white, 17@18c; No. 1, 15@16c; amber, 10@12c; buckwheat almost unsalable. Extracted, best white California, 8½c.

BLAKE, SCOTT & LEE.

KANSAS CITY, Mar. 19.—We quote fancy white comb, 15c; No. 1, 14c; No. 1 amber, 13c; No. 2 amber, 13½c. Extracted, white, 8c; amber, 7c; dark, 6c. Beeswax, 22@25c.

C. C. CLEMONS & Co.

BUFFALO, March 3.—Market nearly bare of all grades of honey. Probably no more from any source to market, but if so, fancy white comb is firm at 15@16c. Other grades from 14c downward, with the poorest at 8@9c. Fancy pure beeswax continues at 26@30c.

BATTERSON & Co.

NEW YORK, Mar. 8.—During the past 30 days our market has been somewhat slow and easy in both comb and extracted honey. Stocks of comb honey, however, are almost exhausted, and there is a fair demand for all grades. Fancy white selling at 15c; No. 1 white at 13@14c; fancy amber, 11@12c, and buckwheat at 9@11c, according to quality, etc.

Our market is well supplied with extracted, tho prices are firm and unchanged. Beeswax sells very well at from 26@28c, according to quality.

HILDRETH & SEGELKEN.

SAN FRANCISCO, Mar. 28.—White comb, 11½@12½c; amber, 8@10c. Extracted, white, 7½@8c. light amber, 7@7½c; amber, 5@5½c; Beeswax, 26@27c.

Supplies and demand are both at present limited, which is to be expected at the close of a light crop year. Business doing is mostly of a small jobbing character, and at practically the same figures as have been current for some time past.

OMAHA, Mar. 13.—Demand shows some improvement in January, having been much more active, but as anticipated there is no advance in prices. Market remains steady at 14@14½c for fancy white comb and 8½c for white extracted. The latter is pretty well cleaned up along the Missouri River, and it looks as if there would be some shortage before another crop comes in. From present appearances there is about enough comb honey to go around at the present prices, hence we look for no particular change in values.

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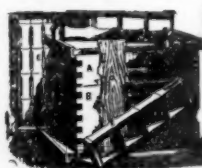
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